

In the Claims:

1. (Currently Amended) For use with a trim press having a die build up plate that is mounted to a first platen, a striker plate that is mounted to a second platen, and wherein the trim press moves the first platen such that the trim press travels between a load position in which a cutting edge is spaced from the striker plate and a cutting position in which the cutting edge confronts the striker plate, a die for cutting a thermoformed plastic article from a sheet of thermoformable plastic that rests upon the striker plate comprising:

a knife element connected to the die build up plate that includes a cutting edge for severing the thermoformable plastic sheet when the knife element confronts the striker plate; and

a band heater is adhered to, and circumscribes an outer perimeter of the knife element ~~about a substantial portion of its perimeter~~ for providing substantially uniform heat to said ~~heating the~~ knife element.

2. (Cancelled) without prejudice or disclaimer.

3. (Original) The die of claim 1 further comprising a thermocouple for measuring a temperature of the knife element and a temperature control module for controlling the heater based on the measured temperature to maintain the knife element temperature within a range of desired temperatures.

4. (Original) The die of claim 1 further comprising a die travel stop mounted to the die build up plate that limits travel of the trim press by engaging a feature on the striker plate when the trim press moves beyond the cutting position.

5. (Original) The die of claim 4 wherein the die travel stop comprises a post element that is mounted on the die build up plate that limits travel of the trim press to no further than a position at which the cutting edge first contacts the striker plate.

6. (Previously Presented) The die of claim 1 further comprising:

a die board moveably mounted to the die build up plate that is moveable within a range of positions along a first plane generally parallel to the sheet of thermoformable plastic and defined by the die build up plate and wherein the knife element is fixed to the die board; and

a die location pilot connected to the die board that engages a registration feature associated with the plastic article such that when the trim press is in the cutting position the registration feature co-acts with the location pilot to move the die board relative to the die build up plate along the first plane such that the knife element is placed in a predetermined cutting alignment with respect to the plastic article.

7. (Original) The die of claim 6 wherein the die location pilot is a post element that includes a generally conical recess that engages a protrusion on the plastic sheet to guide the knife element into the predetermined cutting position.

8. (Original) The die of claim 6 wherein the die board includes a plurality of mounting holes that are oversized with respect to mounting posts on the die build up plate such that when the die board is mounted to the die build up plate the die board can slide on the die build up plate within the range defined by the oversized holes.

9. (Cancelled) without prejudice or disclaimer.

10. (Cancelled) without prejudice or disclaimer.

11. (Cancelled) without prejudice or disclaimer.

12. (Cancelled) without prejudice or disclaimer.

13. (Cancelled) without prejudice or disclaimer.

14. (Cancelled) without prejudice or disclaimer.

15. (Cancelled) without prejudice or disclaimer.

16. (Cancelled) without prejudice or disclaimer.

17. (Cancelled) without prejudice or disclaimer.

18. (Cancelled) without prejudice or disclaimer.

19. (Cancelled) without prejudice or disclaimer.

20. (Cancelled) without prejudice or disclaimer.

21. (Cancelled) without prejudice or disclaimer.

22. (Cancelled) without prejudice or disclaimer.

23. (Cancelled) without prejudice or disclaimer.

24. (Cancelled) without prejudice or disclaimer.

25. (Cancelled) without prejudice or disclaimer.

26. (Currently Amended) The die of claim 1 further comprising:

a die board mounted to the die build up plate and wherein the knife element is fixed to the die board; and

a die location pilot connected to the die board that engages a registration feature on the sheet of thermoformable plastic ~~that is associated with the~~ from which the plastic article is cut by said knife element ~~and separate from the plastic article~~ such that when the trim press is in the cutting position the registration feature co-acts with the location pilot to move the plastic article relative to the die build up plate such that the knife element is placed in a predetermined cutting alignment with respect to the plastic article.

27. (New) For use with a trim press having a die build up plate that is mounted to a first platen, a striker plate that is mounted to a second platen, and wherein the trim press moves the first platen such that the trim press travels between a load position in which a cutting edge is spaced from the striker plate and a cutting position in which the cutting edge confronts the striker plate, a die for cutting a thermoformed plastic article from a sheet of thermoformable plastic that rests upon the striker plate comprising:

- a) a knife element having a inner portion and outer portion, said knife element connected to said die build up plate that includes a cutting edge for severing a thermoformable plastic sheet when the knife element confronts a striker plate;
- b) a band heater adhered to, and circumscribing said outer portion of said knife element for substantially uniform heating the knife element;
- c) a feedback sensing unit positioned between and in direct contact with said knife element and said band heater for communicating temperature readings of said knife element; and
- d) a pair of power leads connected to said band heater for controlling the amount of heat dissipated from said heating band;
- e) whereby the temperature in said knife element is effectively regulated by the direct contact of said feedback sensing unit and heating band with said knife element such that variations measured by said feedback sensing unit from a target temperature results in either an increase or decrease in power to said power leads.

28. (New) The die of claim 27, wherein said feedback sensing unit includes a thermocouple.

29. (New) The die of claim 27 further comprising a die travel stop mounted to the die build up plate that limits travel of the trim press by engaging a feature on the striker plate when the trim press moves beyond the cutting position.

30. (New) The die of claim 29 wherein the die travel stop comprises a post element that is mounted on the die build up plate that limits travel of the trim press to no further than a position at which the cutting edge first contacts the striker plate.

31. (New) The die of claim 27 further comprising:
a die board moveably mounted to the die build up plate that is moveable within a range of positions along a first plane generally parallel to the sheet of thermoformable plastic and defined by the die build up plate and wherein the knife element is fixed to the die board; and
a die location pilot connected to the die board that engages a registration feature associated with the plastic article such that when the trim press is in the cutting position the registration feature co-acts with the location pilot to move the die board relative to the die build up plate along the first plane such that the knife element is placed in a predetermined cutting alignment with respect to the plastic article.

32. (New) The die of claim 31 wherein the die location pilot is a post element that includes a generally conical recess that engages a protrusion on the plastic sheet to guide the knife element into the predetermined cutting position.

33. (New) The die of claim 31 wherein the die board includes a plurality of mounting holes that are oversized with respect to mounting posts on the die build up plate such that when the die board is mounted to the die build up plate the die board can slide on the die build up plate within the range defined by the oversized holes.

34. (New) For use with a trim press having a die build up plate that is mounted to a first platen, a striker plate that is mounted to a second platen, and wherein the trim press moves the first platen such that the trim press travels between a load position in which a cutting edge is spaced from the striker plate and a cutting position in which the cutting edge confronts the striker plate, a die for cutting a thermoformed plastic article from a sheet of thermoformable plastic that rests upon the striker plate comprising:

a knife element connected to the die build up plate that includes a cutting edge for severing the thermoformable plastic sheet when the knife element confronts the striker plate;

a band heater is adhered to, and circumscribes an outer perimeter of the knife element for providing substantially uniform heat to said knife element

a die board mounted to the die build up plate and wherein the knife element is fixed to the die board; and

a die location pilot connected to the die board that engages a registration feature on the sheet of thermoformable plastic from which the plastic article is cut by said knife element such that when the trim press is in the cutting position the registration feature co-acts with the location pilot to align the plastic sheet and the die build up plate such that the knife element is located in a predetermined cutting alignment with respect to the plastic article.

35. (New) The die of claim 34 further comprising a moveable connection in the die board to allow the die board to move into alignment with said plastic sheet via coaction with said registration feature and the location pilot.

36. (New) The die of claim 34 further comprising a moveable connection in the plastic sheet to allow the plastic sheet to move into alignment with said die board via coaction with said registration feature and the location pilot.

37. (New) The die of claim 34, wherein said location pilot includes a generally conical recess.

38. (New) The die of claim 35, wherein said location pilot includes a generally conical recess.